

CLAIMS

1. In a wireless communication system, a method for controlling a data transmission between a transmission source and a receiving device, the method comprising:

receiving a current transmission at a current data rate for a current transmission interval;

detecting an average throughput for the data transmission and reflective of the current transmission;

comparing the detected average throughput against a threshold throughput; and

signaling the transmission source to stop the data transmission if the detected average throughput exceeds the threshold throughput.

2. The method of claim 1, further comprising:

signaling the transmission source to resume the data transmission if the threshold throughput is not exceeded.

3. The method of claim 1, further comprising:

characterizing the performance of the receiving device to determine the threshold throughput.

4. The method of claim 3, wherein the performance of the receiving device is characterized by detecting packets dropped or received in error by the receiving device.

5. The method of claim 3, wherein the performance of the receiving device is characterized prior to first field use of the receiving device.

6. The method of claim 3, wherein the performance of the receiving device is characterized dynamically during field use.

7. The method of claim 1, wherein the detecting includes
2 averaging a value indicative of a throughput for the current transmission
with values indicative of throughputs for one or more prior transmissions in one
4 or more prior transmission intervals.

8. The method of claim 7, wherein the averaging is achieved with a
2 particular averaging scheme selected based in part on a design of a data buffer
used to store samples for the data transmission.

9. The method of claim 7, wherein the averaging is achieved with a
2 sliding window averaging.

10. The method of claim 1, wherein the signaling includes
2 sending a message to the transmission source to request the data
transmission be stopped.

11. The method of claim 10, wherein the message is covered by a null
2 cover that indicates that data transmission is not requested by the receiving
device.

12. The method of claim 10, wherein the message requests a
2 transmission at zero data rate.

13. The method of claim 10, wherein the message is sent for each
2 transmission interval in which a transmission is not requested.

14. The method of claim 1, further comprising:
2 resetting the average throughput to an initial value prior to reception of a
first transmission for the data transmission.

15. The method of claim 1, wherein the data transmission is transmitted
2 in time division multiplexed (TDM) transmission intervals.

16. The method of claim 1, wherein the wireless communication system
2 is an HDR CDMA system.

17. The method of claim 1, wherein the wireless communication system
2 is a CDMA system that conforms to W-CDMA standard or cdma2000 standard.

18. In a CDMA communication system, a method for controlling a data
2 transmission between a base station and a terminal, the method comprising:
receiving a current transmission at a current data rate for a current
4 transmission interval;
detecting an average throughput for the data transmission and reflective
6 of the current transmission, wherein the average throughput is detected by
averaging a value indicative of a throughput for the current transmission with
8 values indicative of throughput for one or more prior transmissions in one or
more prior transmission intervals;
10 comparing the detected average throughput against a threshold
throughput;
12 signaling the base station to stop the data transmission if the detected
average throughput exceeds the threshold throughput; and
14 if the data transmission has been stopped and the threshold throughput
is not exceeded, signaling the base station to resume the data transmission.

19. A terminal operative to receive a data transmission from a
2 transmission source in a wireless communication system, the terminal
comprising:
4 a receiver unit operative to receive and process a modulated signal for
the data transmission to provide digitized samples;
6 a demodulator coupled to the receiver unit and operative to receive and
process the digitized samples to provide a value indicative of a current data
8 rate for a current transmission in a current transmission interval;
a detector coupled to the demodulator and operative to
10 detect an average throughput for the data transmission, wherein
the average throughput is reflective of the current data rate for the
12 current transmission,
compare the detected average throughput against a threshold
14 throughput, and

provide a status signal indicative of a result of the comparison
16 between the detected average throughput and the threshold throughput;
a controller coupled to the detector and operative to receive the status
18 signal and generate a message requesting the transmission source to stop the
data transmission if the detected average throughput exceeds the threshold
20 throughput; and
a transmitter unit coupled to the controller and operative to receive and
22 transmit the message.

20. The terminal of claim 19, wherein the detector includes
2 a filter operative to receive a value indicative of a throughput for the
current transmission and provide the average throughput, and
4 a comparator coupled to the filter and operative to receive and compare
the average throughput with the threshold throughput to provide the status
6 signal.

21. The terminal of claim 20, wherein the filter is implemented as a finite
2 impulse response (FIR) filter.

22. The terminal of claim 19, wherein the message conforms to a DRC
2 message defined by an HDR CDMA system.